

**TETRACALCIUM PHOSPHATE (TTCP) HAVING CALCIUM PHOSPHATE
WHISKER ON SURFACE AND PROCESS FOR PREPARING THE SAME**

CROSS-REFERENCE TO RELATED APPLICATIONS

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[0001] The present application is a continuation-in-part application of US Patent Application Serial Number 10/607,023, filed June 27, 2003, which is a continuation-in-part application of U.S. Patent Application Serial Number 10/414,582, filed April 16, 2003, which is a continuation-in-part application of U.S. Patent Application Serial Number 09/615,384, filed July 13, 2000, now abandoned, which is a continuation-in-part application of U.S. Patent Application Serial Number 09/351,912, filed July 14, 1999, now US patent No. 6,379,453B1. The above-listed applications are commonly assigned with the present invention and the entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

[0002] The present invention relates to a tetracalcium phosphate (TTCP) for producing fast-setting, bioresorbable calcium phosphate cements (CPC), and in particular, to a tetracalcium phosphate having whiskers on the surface thereof for producing fast-setting, bioresorbable CPC having a high initial strength.

DESCRIPTION OF THE RELATED ART

[0003] U.S. Pat. No. 6,379,453B1 which is commonly assigned with the present invention discloses a process for producing a fast-setting, bioresorbable calcium phosphate cement comprising the following steps: obtaining a powder mixture from at least one calcium phosphate selected from the group consisting of $\text{Ca}_4(\text{PO}_4)_2\text{O}$, $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$, CaHPO_4 , $\text{Ca}_8\text{H}_2(\text{PO}_4)_6 \cdot 5\text{H}_2\text{O}$, $\alpha\text{-Ca}_3(\text{PO}_4)_2$, $\beta\text{-Ca}_3(\text{PO}_4)_2$, $\text{Ca}_2\text{P}_2\text{O}_7$, $\text{Ca}_2\text{H}_2\text{P}_2\text{O}_8$, wherein the molar ratio of Ca to P in the mixture is roughly between 1 and 2; mixing the powder mixture in a phosphate-containing solution to obtain a powder/solution mixture